ABSTRACT

The magnetic circuit of a generator in a hydro-generator plant is arranged to directly supply a high supply voltage of 20 - 800 kV, preferably higher than 36 kV. The generator is provided with solid insulation and its winding includes a cable (6) comprising one or more current-carrying conductors (31) with a number of strands (36) surrounded by at least one outer and one inner semiconducting layer (34, 32) and intermediate insulating layers (33). The outer semiconducting layer (34) is at earth potential. The stator winding may be produced with full or fractional slot winding, the phases of the winding being Y-connected. The Y-point may be insulated and protected from over-voltage by means of surge arresters, or else the Y-point may be earthed via a suppression filter. The invention also relates to a hydro-generator plant, a generator included in the plant and a procedure for building such a plant.

(Figure 2.)